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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,247	01/16/2002	Anders Persson	032927-041	3583

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EXAMINER

WEST, LEWIS G

ART UNIT PAPER NUMBER

2682

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 10/046,247	Applicant(s) PERSSON ET AL.	
	Examiner Lewis G. West	Art Unit 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-34 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-11, 13-19, 21-25 and 35 is/are rejected.
- 7) ☒ Claim(s) 8, 12 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> pages. | 6) <input type="checkbox"/> Other: _____ |

Information Disclosure Statement

The information disclosure statements (IDS) submitted on May 26, 2002 and July 26, 2002 have been acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

The drawings are objected to because of poor copy quality, specifically with respect to figures 1-4, there is incomplete shading. In claim 3, it is difficult to distinguish what reference numbers are pointing to as the multiple shaded areas blend together making the picture unclear. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 9, 13, 15, 17-19, 24, 25 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Beauvillier (US 6,104,291).

Regarding claim 1, Beauvillier discloses a method of processing electronic devices, wherein several devices are processed simultaneously in a mode-stirred chamber (Col. 12 lines 34-45), and said processing comprises a transfer of airborne signals between at least one antenna in the chamber and an antenna on each of the devices. (Col. 11 lines 7-27)

Regarding claim 2, Beauvillier discloses a method according to claim 1, wherein said processing comprises downloading of software to said electronic devices. (Col. 11 lines 19-27)

Regarding claim 3, Beauvillier discloses a method according to claim 1, wherein said processing comprises testing of said electronic devices. (Col. 11 lines 19-27)

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Regarding claim 4, Beauvillier discloses a method according to claim 3, wherein said tests of said devices are performed synchronously. (Col. 11 lines 19-27)

Regarding claim 5, Beauvillier discloses a method according to claim 3, wherein said tests of said devices are performed sequentially. (Col. 10 lines 24-49)

Regarding claim 6, Beauvillier discloses a method according to claim 1, wherein said tests of said devices are different for different devices. (Col. 11 lines 19-27)

Regarding claim 7, Beauvillier discloses a method according to claim 1, wherein said processing comprises downloading of enabling software to said devices as a last step in the production process, while said devices are individually packaged in their final package. (Col. 5 lines 20-44; Col. 4 lines 3-14).

Regarding claim 9, Beauvillier discloses a method according to claim 3, wherein said test are carried out at different environmental conditions. (Modes in the chamber are shifted, thus changing the environment of the device) (Col. 12 lines 33-45)

Regarding claim 13, Beauvillier discloses a method according to claim 1, wherein said processing is performed at different frequencies. (Col. 12 lines 33-45)

Regarding claim 15, Beauvillier discloses a chamber for processing electronic devices, wherein said chamber comprises means for controlling of airborne signals which are transferred simultaneously between antenna means in the chamber and antenna means on several devices. (Col. 11 lines 7-27)

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Regarding claim 17, Beauvillier discloses a chamber according to claim 15, wherein said means comprise a base station and computer means. (Col. 4 lines 4-28)

Regarding claim 18, Beauvillier discloses a chamber according to claim 17, wherein the computer means comprises software to be downloaded to said electronic devices. Col. 5 lines 21-25)

Regarding claim 19, Beauvillier discloses a chamber according to claim 15, wherein said chamber comprises one or more field diffusing elements. (Col. 12 lines 33-45)

Regarding claim 24, a chamber according to claim 15, wherein said chamber is provided with one receiving antenna for each device under test. (Col. 11 lines 7-27)

Regarding claim 25, Beauvillier discloses a chamber according to claim 15, wherein said chamber is adapted for downloading enabling software to said devices while said devices are individually packaged in their final package. (Col. 5 lines 20-44; Col. 4 lines 3-14)

Regarding claim 35, Beauvillier discloses the use of a chamber for processing electronic devices, wherein several devices are handled simultaneously and said processing comprises a transfer of airborne signals. (Col. 11 lines 7-27)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauvillier in view of Rosengren et al ("A New Method to Measure Radiation Efficiency of Terminal Antennas", November 2000).

Regarding claim 10, Beauvillier discloses a method according to claim 1, but does not disclose rotating and averaging the mode stirrers. Rosengren discloses a method wherein said processing comprises measuring the average output power of each of said radio communications devices by rotating one stirrer of said mode-stirred chamber, and averaging the results of several measurements for each rotation of said stirrer. (Page 6 "Description of a Reverberation Chamber") Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use rotating and averaging in a mode stirred chamber in order to test for as many modes as possible, the more modes the more accurate the result for radiation efficiency. (see Rosengren pages 6, second full paragraph)

Regarding claim 11, Beauvillier discloses a method according to claim 1, but doesn't note expressly averaging and comparison with a test antenna. Rosengren discloses a method wherein said processing comprises determining the radiation efficiency of each of said radio communications devices by making a measurement of average received power for each device and comparing it with a corresponding measurement using a reference antenna with known radiation efficiency. (Pages 6-7) Therefore it would have been obvious to one of ordinary skill in the art at the time of the

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invention to use average measurements compared to a reference in order to get a smoothed representation indicative of other modes not measured so that they may be interpolated.

Regarding claim 14, Beauvillier discloses a method according to claim 1, but does not expressly disclose Bluetooth. Rosengren discloses a mode-stirred test chamber wherein said airborne signals are transmitted according to the Bluetooth standard. (Page 6 "Description of a Reverberation Chamber") Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use Bluetooth, as it is an industry accepted standard and complies with FCC requirement for unlicensed frequency use as well as FCC class 1 power requirements.

Claims 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauvillier in view of Goldblum (US 5,530,412).

Regarding claim 16, Beauvillier discloses a chamber according to claim 15, but does not expressly disclose mode stirrers controlled with motors. Goldblum discloses a test chamber wherein said means are arranged for controlling of motors operatively connected to respective mode stirrers in the chamber. (Col. 5 lines 10-27) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have motor controlled mode stirrers in order to automate the changing of modes in the test environment.

Regarding claim 21, the combination of Beauvillier and Goldblum discloses a chamber according to claim 16, herein at least one mode stirrer is covered with a

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dielectric material with a high dielectric constant and a low loss factor. (Col. 4 lines 10-40)

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beauvillier in view of Baker (US 5,637,812).

Regarding claim 22, Beauvillier discloses a chamber according to claim 15, but does not expressly disclose vibration. Baker discloses a chamber for testing electronic devices wherein said chamber comprises a vibrator for inducing mechanical vibrations. (Col. 3 lines 23-36) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to vibrate devices under test in order to simulate shock and damage the device might be subjected to by real world vibrations.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beauvillier in view of Hugh (US 6,278,413).

Regarding claim 23, Beauvillier discloses a chamber according to claim 15, but does not disclose several receiving antennas for each device under test. Hugh discloses RFID devices with multiple antennae. (Col. 5 lines 36-43) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that it would be necessary to test the multiple element RFID devices in the same manner as the single antenna devices.

Allowable Subject Matter

Claims 8, 12 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 8, the prior art discloses a method according to claim 1, but does not expressly disclose a method wherein said processing comprises test of radio properties of said electronic devices as well as test of acoustic and optical properties of said devices. When incorporating all the limitations of the base claim and any intervening claims, none of the prior art discloses the features as claimed.

Regarding claim 12, the prior art discloses a method according to claim 11, but does not disclose a method wherein said processing comprises determining the specific absorption rate of each of said radio communications devices by performing the steps of creating a numerical model of the radio device type and its interaction with a phantom body, determining the radiation efficiency of each of said radio communications devices in a mode-stirred chamber and calculating the SAR value for each device using said numerical model and individual values of radiation efficiency. When incorporating all the limitations of the base claim and any intervening claims, none of the prior art discloses the features as claimed.

Regarding claim 20, the prior art discloses a chamber according to claim 19, but does not expressly disclose a method wherein said field diffusing elements comprise cavities located inside the chamber, said cavities being filled by dielectric material with a

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high dielectric constant and a low loss factor. When incorporating all the limitations of the base claim and any intervening claims, none of the prior art discloses the features as claimed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 26, the prior art discloses test chambers for testing and processing devices for safety, conformance to standards, and durability under simulated usage and environmental conditions as well as programming finalized devices. The prior art does not teach or fairly suggest a chamber for processing electronic devices wherein said chamber is adapted for testing several radio communications devices simultaneously according to a predetermined test program, said chamber comprising a base station for setting up calls to a group of the radio communications devices in the chamber, each device being assigned a unique receive and transmit channel for airborne signals, and wherein said devices comprising basic software and energizing means at least enabling the completion of the test, and at least one receive antenna for receiving radio signals from said group.

Claims 27-34 depend directly or indirectly for allowable claim 26. When incorporating all the limitations of the base claim and any intervening claims, none of the prior art discloses the features as claimed.

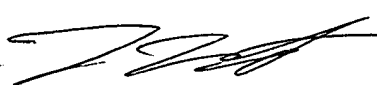
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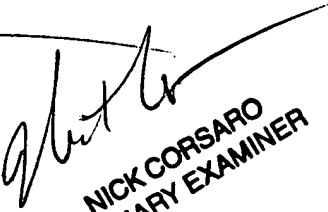
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 571-272-7859. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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